

REMARKS**Objection to Drawings under 37 C.F.R. §1.83(a)**

The drawings are objected to for the reasons of record stated on page 2 of the Office Action. The Office Action indicates that the retaining means for removably retaining tableware (Claims 59 - 60) must be shown or the feature cancelled from the claims.

Claims 59 - 60 are cancelled herewith without prejudice. Hence, as this objection is now moot, Applicants respectfully request withdrawal of this objection.

35 U.S.C. § 112 Rejections

Claims 33 - 39, 41 - 46, and 51 - 58 are rejected under 35 U.S.C. §112, second paragraph for the reasons of record stated on page 3 of the Office Action. The Office Action indicates specifically that it is unclear as to how the claimed device of "Claims 33, 41, 51, and 59" can be considered to be ultrasonic and have an average oscillating frequency of from about 1000 Hz to 100 kHz. With regard to this rejection, it is believed that the recitation of Claim 59 in the Office Action is a typographical error. Furthermore, as Claim 59 now stands cancelled, any rejection related to this claim is now moot.

With regards to Claims 33 - 49, 41 - 46, and 51 - 58, these claims have been amended to overcome the Examiner's rejection. Support for this amendment is found on page 1, line 25 - 28.

35 U.S.C. § 102 Rejection

Claims 59 - 60 are rejected under 35 U.S.C. §102(b) over FR 1,102,562 (hereinafter "FR '562") for the reasons of record stated at pages 3 and 4 of the Office Action. As Claims 59 - 60 are cancelled herewith, this rejection is now moot. Applicants respectfully request withdrawal of this rejection.

35 U.S.C. §103(a) Rejections**Sharp:**

Claims 33 - 35, and 39, are rejected under 35 U.S.C. §103(a) as obvious over U.S. 5,297,512 issued to Sharp (hereinafter "Sharp") for the reasons of record stated at pages 5 and 6 of the Office Action. Applicants respectfully traverse this rejection. Sharp purports to relate to an ultrasonic hairbrush for grooming an animal. Page 4 of the Office Action asserts that Fig. 1 of Sharp indicates a finger defining a scale for the size of the device indicating that the area is greater than 6.25 cm². Applicants disagree with this assertion. To establish a prima facie case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference. Second, there must be a reasonable expectation of success. Third, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not

based on applicant's disclosure. MPEP 2142 citing *In re Vacck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Claim 33 of the instant application and all claims dependent therefrom require that the minimum surface area of the cleaning head is greater than about 6.25 cm². Fig. 1 of Sharp shows a finger touching the housing of the apparatus. However, Sharp does not teach or suggest the specific limit of a minimum cleaning head surface area of greater than about 6.25 cm², nor is it clear that the finger touching the housing of the apparatus equates to a cleaning head greater than about 6.25 cm².

Furthermore, Sharp does not teach either expressly or impliedly a cleaning head which is interchangeable. Hence, as a prima facie case of obviousness has not been met, Claims 33 - 35 and 39 of the instant application are not obvious over Sharp. Applicants respectfully request that this rejection be reconsidered and withdrawn.

Center:

Claims 33 - 35, 39, 42 - 44, 47, 49, 51, and 55 are rejected under 35 U.S.C. §103(a) as obvious over U.S. 5,311,632 issued to Center (hereinafter "Center") for the reasons of record stated at pages 5 - 6 of the Office Action. Applicants respectfully traverse this rejection. Center relates to a toothbrush for cleaning teeth. [See column 1, lines 5 - 10 of Center]. Center does not teach or suggest either expressly or inherently a cleaning head which rests on a surface greater than about 6.25 cm². Furthermore, one of ordinary skill in the art would expect a toothbrush to have a cleaning head much smaller than 6.25 cm² in order to fit into the mouth. Hence, Center teaches away from the present invention.

Page 18 of the Office Action indicates that the device of Center "*has an oscillating frequency of about 100 kHz, (10 - 20 MHz)*". Applicants disagree with this assertion. Center does not teach either expressly or impliedly a transducer means having an average oscillating frequency of from about 1000 Hz to about 100 KHz. In fact, Center teaches an ultrasonic transducer capable of producing an ultrasonic wave in the frequency of 10 - 20 MHz (i.e.; 10,000 KHz - 20,000 KHz). The frequency range claimed by Applicants is substantially lower than that taught by Center. [See Center, column 3, lines 61 - 63]. Hence, Claims 33 - 35, 39, 42 - 44, 47, 49, 51, and 55 are unobvious over Center. As Claims 33 - 35, 39, 42 - 44, 47, 49, 51, and 55 of the instant invention are unobvious over Center, Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

Sawyer:

Claims 33 - 36, 38 - 39, 41 - 51, and 55 are rejected under 35 U.S.C. §103(a) as obvious over U.S. 3,357,033 issued to Sawyer (hereinafter "Sawyer") for the reasons of record stated at pages 7 - 8 of the Office Action. Sawyer purports to relate to a cleaning tool which utilizes a source of sonic energy in the lower sonic range. [See column 1, lines 10 - 15 and lines 50 - 55 of Sawyer]. The cleaning tool taught by Sawyer does not utilize ultrasonic energy. Furthermore, the cleaning tool of

Sawyer does not teach or suggest a cleaning device having *inter alia* a transducer means having an average oscillating frequency of from about 1000 Hz to about 100 KHz.

On page 8 of the Office Action the Examiner indicates that Sawyer releases sonic energy at the surface "*that is of a frequency from about 1000 Hz to about 100 kHz*". On page 17 of the Office Action, the Examiner indicates that Sawyer "*does utilize ultrasonic energy having a transducer means having an average oscillating frequency from about 1000 Hz to about 100 KHz*". Applicants respectfully disagree with these assertions. Nowhere in Sawyer is this frequency range disclosed or suggested. In fact, Sawyer discloses at column 3, lines 50 - 55 that "*Good results are produced when for a 110 volt source of electrical energy a motor operating at somewhere between 45 and 70 watts is made use of capable of generating relatively low frequency sound waves typically between 50 and 150 cycles per second*". The 50 - 150 cycles per second (i.e.; 50 Hz - 150 Hz) disclosed by Sawyer is well below Applicants' claimed range of from about 1000 Hz to about 100 kHz. Hence, Claims 33 - 36, 38 - 39, 41 - 51, and 55 are not obvious in view of Sawyer. As Claims 33 - 36, 38 - 39, 41 - 51, and 55 are unobvious in view of Sawyer, Applicants respectfully request that this rejection be reconsidered and withdrawn.

Hoffman:

Claims 33 - 37, 39, 42 - 49, 51, 52, and 55 - 56 are rejected under 35 U.S.C. §103(a) as obvious over U.S. 5,890,249 issued to Hoffman (hereinafter "Hoffman") in view of Center for the reasons of record stated at pages 9 - 10 of the Office Action. Applicants respectfully traverse this rejection. Hoffman does not teach or suggest *inter alia* an ultrasonic cleaning device. Furthermore, neither Hoffman nor Center nor Hoffman in view of Center teach or suggest *inter alia* a transducer means having an average oscillating frequency of from about 1000 Hz to about 100 KHz. Yet further, page 10 of the Office Action indicates that the cleaning composition of Hoffman is lye wherein lye "*is a process aid, antibacterial agent, a surfactant, "perfume", anti-microbial agent, etc.*". Applicants respectfully traverse this assertion. Hoffman on page 2, lines 56 - 59 indicates that an oven cleaning head includes an internal chamber for retaining a a cleaning lye. There is no teaching within Hoffman to suggest either expressly or impliedly the use of a process aid, antibacterial agent, surfactant, perfume, or anti-microbial agent. Hence, as Claims 33 - 37, 39, 42 - 49, 51, 52, and 55 - 56 of the instant invention are unobvious over Hoffman in view of Center, Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

Bock (U.S. 5,369,831):

Claims 33 - 35, 39, and 42 - 45 are rejected under 35 U.S.C. §103(a) as obvious over U.S. 5,369,831 issued to Bock (hereinafter "Bock '831") for the reasons of record stated at pages 11 -12 of the Office Action. Applicants respectfully traverse this rejection. Bock '831 teaches an ultrasonic toothbrush for removing plaque and tartar from teeth. Page 11 of the Office Action indicates that "*the transducer means has an average oscillating frequency of from about 1000 Hz to about 100kHz, since ultrasonic refers to subsonic, sonic, or ultrasonic which from definitions previously stated fall into the range of about 1000 Hz to about 100 kHz*." To support this assertion,

the Office Action references column 2, lines 66 - 68 of Bock '831 which indicates only that *"in the following discussion, unless otherwise qualified, the term "ultrasonic" refers to either subsonic, sonic, or ultrasonic frequencies"*. Applicants respectfully disagree with the Examiner's assertion. It is impermissible to reconstruct the prior art in hindsight based on Applicants claimed invention. M.P.E.P. §2142. There is no teaching within Bock '831 that points to or suggests either expressly or impliedly Applicants' specific claimed average oscillating frequency. In fact, Bock '831 provides no teaching to suggest any oscillating frequency ranges. Yet further, Bock '831 does not teach or suggest either expressly or inherently a cleaning head which rests on a surface greater than about 6.25 cm². Claims 33 - 35, 39, and 42 - 45 of the instant application would be unobvious in view of Bock '831 as cleaning teeth would require a cleaning head for resting on a surface smaller than 6.25 cm² in order to fit into the mouth. Hence, Bock '831 teaches away from the present invention. Hence, as Claims 33 - 35, 39, and 42 - 45 are unobvious over Bock '831, Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

Bock (U.S. 5,546,624):

Claims 33 - 35, 39, and 42 - 45 are rejected under 35 U.S.C. §103(a) as obvious over U.S. 5,546,624 issued to Bock (hereinafter "Bock '624") for the reasons of record stated at pages 12 - 13 of the Office Action. Applicants respectfully traverse this rejection. Bock '624 teaches an ultrasonic toothbrush for removing plaque and tartar from teeth. Bock '624 does not teach or suggest either expressly or inherently a cleaning head which rests on a surface greater than about 6.25 cm². Claims 33 - 35, 39, and 42 - 45 of the instant application would be unobvious in view of Bock '624 as cleaning teeth would require a cleaning head for resting on a surface smaller than 6.25 cm² in order to fit into the mouth. Hence, Bock '624 teaches away from the present invention.

Furthermore, Bock '624 does not teach or suggest a transducer means having an average oscillating frequency of from about 1000 Hz to about 100 KHz. With regard to the oscillation frequency of the Bock '624 toothbrush, page 13 of the Office Action indicates that *"the frequency is 1.6 MHz (about 100 KHz)"*. Applicants disagree with this assertion. Referring to column 8, line 43 of Bock '624, it is disclosed that a *"useful frequency is 1.6 MHz"*. The frequency range claimed by Applicants is substantially lower than the 1.6 MHz (i.e.; 1,600 KHz) disclosed by Bock '624.

Yet further, page 13 of the Office Action indicates that *"the transducer means has an average oscillating frequency of from about 1000 Hz to about 100kHz, since ultrasonic refers to subsonic, sonic, or ultrasonic which from definitions previously stated fall into the range of about 1000 Hz to about 100 kHz."* To support this assertion, the Office Action references column 3, lines 51 - 54 of Bock '624 which indicates only that *"in the following discussion, unless otherwise qualified, the term "ultrasonic" refers to either subsonic, sonic, or ultrasonic frequencies"*. Applicants respectfully disagree with the Examiner's assertion. It is impermissible to reconstruct the prior art in hindsight based on Applicants claimed invention. M.P.E.P. §2142. There is no teaching within Bock '624 that points to or suggests either expressly or impliedly Applicants' specific claimed average oscillating frequency. The only oscillating frequency disclosed by Bock '624 (i.e.; 1.6 MHz) is in fact substantially higher than the average oscillating frequency claimed by Applicants.

Hence, as Claims 33 - 35, 39, and 42 - 45 are unobvious over Bock '624, Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

Center:

Claims 53 - 54, and 57 - 58 are rejected under 35 U.S.C. §103(a) as obvious over U.S. 5,311,632 issued to Center for the reasons of record stated at page 14 of the Office Action. Applicants respectfully traverse this rejection. As previously discussed, Center relates to a toothbrush for cleaning teeth. Center does not include or suggest instructions for using. Furthermore as previously discussed above, Center does not teach or suggest either expressly or inherently a cleaning head which rests on a surface greater than about 6.25 cm^2 . Yet further, Claims 53 - 54 and 57 - 58 of the instant application would be unobvious in view of Center as cleaning teeth would require a cleaning head for resting on a surface smaller than 6.25 cm^2 in order to fit into the mouth. Hence, Center teaches away from the present invention. Additionally, Center does not teach or suggest a transducer means having an average oscillating frequency of from about 1000 Hz to about 100 KHz. Hence, as a prima facie case of obviousness has not been met, Claims 53 - 54 and 57 - 58 are unobvious over Center. Applicants respect request reconsideration and withdrawal of the rejection.

SUMMARY

This is an RCE which is responsive to the final Office Action dated July 1, 2004. A one-month extension of time is requested herewith to respond to this Office Action. As the rejections have been overcome, it is believed that the claims are in condition for allowance. Applicants respectfully request the rejections be reconsidered and withdrawn and the claims allowed.

Respectfully submitted,
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